DECISION

I. INTRODUCTION

On July 1, 1994, Public Act 94-83, "An Act Implementing the Recommendations Of the Telecommunications Task Force" (the Public Act or Act), became Connecticut law. The Act is a broad strategic response to the changes facing the telecommunications industry in Connecticut. The technological underpinnings, the framework for a more participative, and ultimately more competitive, telecommunications market, and the role of regulation envisioned by the legislature are essential to the future realization and public benefit of an "Information Superhighway" in Connecticut.

At the core of the Public Act are the principles and goals articulated therein. Section 2 (a) of the Act provides in pertinent part:

> Due to the following: affordable, high quality telecommunications services that meet the needs of individuals and businesses in the state are necessary and vital to the welfare and development of our society; the efficient provision of modern telecommunications services by multiple providers will promote economic development in the state; expanded employment opportunities for residents of the state in the provision of telecommunications services benefit the society and economy of the state; and advanced telecommunications services enhance the delivery of services by public and not-for-profit institutions, it is, therefore, the goal of the state to (1) ensure the universal availability and accessibility of high quality, affordable telecommunications services to all residents and businesses in the state, (2) promote the development of effective competition as a means of providing customers with the widest possible choice of services, (3) utilize forms of regulation commensurate with the level of competition in the relevant telecommunications service market, (4) facilitate the efficient development and deployment of an advanced telecommunications infrastructure, including open networks with maximum inter-operability and inter-connectivity, (5) encourage shared use of existing facilities and cooperative development of new facilities where legally possible, and technically and economically feasible, and (6) ensure that providers of telecommunications services in the state provide high quality customer service and high quality technical service.

Conn. Gen. Stat. § 16-247a (a).

The central premise of the legislation is that broader participation in the Connecticut telecommunications market will be more beneficial to the public than will broader regulation. It is significant, however, that the Act does not chart a detailed plan for realization of its goals and compliance with its principles. Rather, the Act entrusts the Department of Public Utility Control (Department) with the responsibility of

implementing both the letter and spirit of its important provisions; the Act thus endows the Department with broad powers and procedural latitude as it seeks to achieve the legislative goals through the facilitation of the development of competition for all telecommunications services.

In light of the Public Act, the Department's efforts must facilitate market conditions and create regulatory conditions that will maximize the benefits of future competition for the user public of Connecticut. As articulated by the Department's Chairman, Reginald J. Smith, during the June 23, 1994 technical meeting in Docket No. 94-05-26, General Implementation of Public Act 94-83, the passage of Public Act 94-83 places the Department and the telecommunications industry at an unprecedented point in Connecticut regulatory history with an opportunity to define a markedly different future for Connecticut telecommunications. The Department, therefore, established a framework for the implementation of Public Act 94-83 that would allow it the opportunity to fully and publicly explore all the alternatives available to it under the terms and conditions of the legislation and establish therefrom appropriate regulatory mechanisms to effect the legislative intent that telecommunications services be regulated "in a manner designed to foster competition and protect the public interest." The implementation framework involves four phases: the initial conceptual infrastructure phase, the competition phase, the alternative regulation phase and the holding company affiliate phase.

The Conceptual Infrastructure Phase consisted of Docket No. 94-07-01, The Vision For Connecticut's Telecommunications Infrastructure, in which a Decision was issued on November 1, 1994. The Department initiated that docket in recognition of the fact that effective and efficient implementation of Public Act 94-83 required at the outset an investigation of the state's telecommunications infrastructure which is the foundation for the provision of all telecommunications services. In its Decision, therefore, the Department identified the attributes that will be required of any future infrastructure to achieve the Act's goals, articulated intended Department initiatives to facilitate the development of a future infrastructure that exhibits those identified attributes and identified issues to be more fully explored in subsequent implementation dockets.

To begin the Competition Phase, in July of 1994, the Department initiated eight highly focused, limited discovery dockets to address the issues raised by the legislature's commitment to broader market participation in Connecticut: Docket No. 94-07-02, Development of the Assumptions, Tests, Analysis, and Review to Govern Telecommunications Service Reclassifications in Light of the 8 Criteria Set Forth in Section 6 of Public Act 94-83. Docket No 94-07-03, DPUC Review of Procedures Regarding the Certification of Telecommunications Companies and of Procedures Regarding Requests by Certified Telecommunications Companies to Expand Authority Granted in Certificates of Public Convenience and Necessity; Docket No. 94-07-04, DPUC Investigation into the Competitive Provision of Local Exchange Service in Connecticut; Docket No. 94-07-05, DPUC Investigation into the Competitive Provision of Customer Owned Coin Operated Telephone Service in Connecticut; Docket No. 94-

07-06, DPUC Investigation into the Competitive Provision of Alternative Operator Service in Connecticut; Docket No. 94-07-07, DPUC Investigation of Local Service Options, Including Basic Telecommunications Service Policy Issues and the Definition and Components of Basic Telecommunications Service; Docket No. 94-07-08, DPUC Exploration of Universal Service Policy Issues; and Docket No. 94-07-09, DPUC Exploration of the Lifeline Program Policy Issues. Those proceedings have been completed and Final Decisions issued.

Also integral to the achievement of effective competition as prescribed by Public Act 94-83 are dockets addressing the mandate of Conn. Gen. Stat. Section 16-247b to unbundle "the noncompetitive and emerging competitive functions of a telecommunications company's local telecommunications network that are used to provide telecommunications services and which . . . are reasonably capable of being tariffed and offered as separate services." Docket No. 94-10-02, DPUC Investigation into the Unbundling of The Southern New England Telephone Company's Local Telecommunications Network (Final Decision issued September 22, 1995);[1] Docket No. 94-11-03, DPUC Investigation into the Unbundling of the New York Telephone Company's Local Telecommunications Network; and Docket No. 94-11-06, DPUC Investigation into the Unbundling of the Woodbury Telephone Company's Local Telecommunications Network (the latter two dockets are currently in development stages). In addition to those unbundling dockets, the Competition Phase will entail a companion investigation of selective participative architecture issues that will impact the achievement of competition as discussed by the Department in Docket No. 94-07-01 and which emerge in consequence of the unbundling dockets. A docket for that investigation has been opened, Docket No. 94-10-04, DPUC Investigation into Participative Architecture Issues. The Department will also sponsor an examination of quality of service standards compelled by changes in provider responsibilities in a participative market such as that envisioned by Public Act 94-83.

Relevant to both the Competition Phase and the Alternative Regulation Phase, which are being conducted concurrently, the Department initiated individual investigations of each of the state's incumbent telephone companies' cost of providing telecommunications services for the purpose of constructing a financial and procedural framework for use by the Department in evaluating the unbundling and pricing initiatives to be proposed by those telephone companies: Docket No. 94-10-01, DPUC Investigation into the Southern New England Telephone Company's Cost of Providing Service (Final Decision issued June 15, 1995); Docket No 94-11-02, DPUC Investigation into the New York Telephone Company's Cost of Providing Service; and Docket No. 94-11-05, DPUC Investigation into the Woodbury Telephone Company's Cost of Providing Service (the latter two dockets are in development stages). With

[1] In Docket No. 95-06-17, Application of The Southern New England Telephone Company for Approval to Offer Unbundled Loops, Ports and Associated Interconnection Arrangements, the Department is in the process of investigating SNET's proposed tariffs, terms and conditions for the sale of unbundled loops and ports and resale of local exchange service.

similar intent, the Department initiated individual companion dockets to review each local exchange carrier's depreciation policies and practices: the instant docket; Docket No. 94-11-04, DPUC Investigation into The New York Telephone Company's Intrastate Depreciation Rates; and Docket No. 94-11-07, DPUC Investigation into The Woodbury Telephone Company's Intrastate Depreciation Rates. In addition to being relevant to the unbundling proceedings, the detailed financial reviews are essential to full and fair examination of the impact upon competition of any alternative regulatory framework or treatment of the local exchange carrier community by the Department in the future. Findings, conclusions and recommendations developed in the context of these proceedings will serve as a foundation in future proceedings wherein the Department will consider specific requests filed by the incumbent telephone companies for increased discretionary authority and reduced regulatory participation in the telecommunications services business. The Southern New England Telephone Company has filed such a request for alternative regulation with the Department, which request is currently under review and consideration in Docket No. 95-03-01, Application of The Southern New England Telephone Company for Financial Review and Proposed Framework for Alternative Regulation.

Finally, the Department has initiated Docket No. 94-10-05, DPUC Investigation of The Southern New England Telephone Company Affiliate Matters Associated with the Implementation of Public Act 94-83. In this proceeding the Department will examine the financial, structural and operational impact of broader competition and any increased discretionary authority that may be provided SNET. Although the docket is currently open, the Department has deferred active investigation of holding company structure and affiliate relationships to a point closer to the end of the implementation period, thereby permitting construction of a better set of preliminary policies to guide the Department's investigation.

Public Act 94-83 presents a significant challenge to a number of regulatory principles that historically have guided Department decisions. The earlier statutory authority specifically focused on maximizing the public benefit by authorizing only a single telecommunications service provider for any given market. The Department, therefore, was able to direct its attention solely at regulating the conduct of a single dominant corporation against a desired public standard of affordable and available telephone service. Under the provisions of Public Act 94-83, the Department faces an unprecedented task of managing the introduction of broader participation into a heretofore single-provider market without unduly risking the availability, accessibility and affordability of basic telecommunications services to all prospective Connecticut users. The Department intentionally designed the implementation process to chart an orderly transition to effective competition such that the full scope and scale of benefits envisioned by the Connecticut legislature in enacting Public Act 94-83 may be realized. The Department's implementation decisions to date have consistently reflected its stated commitment to establishing a regulatory framework that affords fair competition among incumbent providers and new competitors while protecting the interests of the Connecticut public.

II. PARTIES AND INTERVENORS

The Department recognized as parties in this proceeding The Southern New England Telephone Company (SNET), 227 Church Street, New Haven, Connecticut 06510 and the Office of Consumer Counsel (OCC), 136 Main Street, Suite 501, New Britain, Connecticut 06051. The New England Cable Television Association, Inc. (NECTA), 21 Oak Street, Suite 101, Hartford, CT 06106 requested and was granted intervenor status.

III. DOCKET SCOPE AND PROCEDURE

In order to put into context the instant investigation, the Department offers the following general discussion on depreciation concepts, a summary of the Department's previous treatment of depreciation for SNET, and an explanation of the context of the instant proceeding.

A. DEPRECIATION GENERALLY

In the most basic terms, depreciation is a recognition that all property used in a trade or business wears out and eventually must be replaced. Deterioration begins the moment a new piece of property is put into use and continues until it becomes useless at some point in the future. This process of wearing out or losing service value is generally referred to as "depreciation."[2]

Depreciation may be caused by the expected wear and tear coincident with use of the property in the owner's business or by natural causes which occur with the passage of time. In addition to physical depreciation, property may also experience functional depreciation, i.e. property may become outmoded by new techniques or improved models which render earlier models of the same equipment too wasteful to operate or which lack the capacity or capability to satisfy the forecasted growth of service volume or demand that will be required in the future.

The pace at which any property depreciates is, therefore, highly dependent upon two variables. First, the manner in which an owner uses and maintains property to minimize the natural effects of aging affects the pace of depreciation. It is a well documented fact that everything is subject to aging; preventive maintenance measures and prudent use of the property, however, can slow the aging process and slow the loss of value that might otherwise be experienced. Second, the pace of depreciation

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[2] The word "depreciation" stems from the Latin "de" meaning "down from" and "pretium" meaning "price or value." Depreciation of property at any date is measured by how far its price or value stands "down from" that at a previous date.

may be affected by the self-interested efforts of parties other than the owner of the specific property to effect changes in public policy, production processes and procedures, making the property obsolete and thus offsetting any efforts to extend the useful life of the property. As opposed to natural aging, prudent management techniques or conservation on the part of a property owner cannot generally prevent the effects of obsolescence.

Current market dynamics suggest that obsolescence is principally controlled by parties other than the owner who would directly benefit from replacement or improvement of the property in question. One need look no further than one's own personal experience in purchasing various consumer goods -- clothing, automobiles, computer software -- to see evidence of the fact that the purchaser of those products has little or no ability to control its eventual obsolescence. In each instance, the innovation and initiative of others who directly benefit by making our purchases obsolete prevail over our efforts to extend the value of our property.

In recent years, many manufacturers have emphasized the value of product life cycle strategies in migrating customers from current offerings of a company to its future offerings, in part, by managing the scale and scope of innovation to be introduced into the manufacturer's product line over a prescribed period of time. The intent of such an effort, of course, is to maximize the future economic benefit to be derived by weaning customers from their existing products or technology with programmed obsolescence.

The principle of planned obsolescence has consequently evolved over time and today is a generally accepted component of almost every manufacturer's strategy. Because the practice of programmed obsolescence is so pervasive, and its use may impact upon the expected useful life of any property, a discussion of depreciation such as that encompassed within this proceeding would be incomplete if the Department's interests were confined only to an examination of the natural effects of aging on SNET's plant. Therefore, in this proceeding the Department has examined the effects of both controllable and uncontrollable forces with respect to depreciation.

Explanation of the following concepts regarding depreciation will aid in the understanding of the participants' positions in this proceeding and the Department's ultimate conclusions in this Decision.

"Salvage value" refers to the estimated dollar amount that would be received upon a sale of property used in a trade or business after the property has become worn out or unproductive. This amount is sometimes described as "gross salvage," as distinguished from "future net salvage" (FNS), which is equal to salvage value minus the cost of removing, dismantling, or demolishing the unproductive asset.

"Useful life" refers to the period of time over which property is depreciated. In basic terms, it is a rough approximation of the period of time during which a business should recognize the ongoing loss of value of its assets and the upcoming expense of

having to replace such property. PLIFE is a numeric term expressed in years that best reflects the projected useful life of any particular asset at the time of placing it in service. The PLIFE is critical to calculating the size of the annual depreciation allowance for each asset or asset group because it determines the number of years over which the investment can be recovered. The PLIFE assigned to any particular asset is a product of an actuarial calculation by company representatives with some adjustment for current market conditions.

Generally, one of two techniques is used for determining the portions of service life used in a depreciation calculation. First, the Whole Life Method spreads depreciation over the entire life of the plant by making use of the entire average service life in the depreciation formula. This technique effectively disregards any real change to the useful life of an asset group presented by changes in the market or by technological obsolescence. The difference in the permissible depreciation allowance that would result if changes to the useful life of an asset were periodically incorporated into the calculation is generally referred to as the reserve deficiency. (The reserve deficiency is the amount by which an asset group's theoretical reserve exceeds the group's actual reserve. An asset group's actual reserve is the accumulation of the group's depreciation expense over a period of years. Its theoretical reserve is the amount that the actual reserve would have been if the PLIFE determined in a depreciation study had been used to determine a depreciation rate that would have been in force for that period.) When a company employs the Whole Life Method, it must amortize the asset's reserve deficiency in order to fully recover the asset's capital cost.

The second technique is the Remaining Life Method. This technique acknowledges the increasing importance of external conditions on the useful life of telephone plant and the importance of properly reflecting that in the depreciation allowances. The Remaining Life Method, therefore, provides a company the opportunity to periodically adjust its estimates of the remaining economic life of any group of assets and to recover its full investment in that period of time. Experience of the past two decades suggests that the useful life of virtually all plant assets is proving to be less than originally projected at the time of investment. Under the Remaining Life Method, the economic life periods used in calculating depreciation are thus shortened to permit full recovery of the investment in a shorter period of time. This has the effect of eliminating any reserve deficiency that might exist by increasing the depreciation allowances for that particular asset group.

In businesses with a large number of fixed assets, it is common to combine a large number of like-kind assets in a group or class account with a single aggregated basis. Two means of grouping such individual assets are generally used by regulated utilities: Equal Life Group, an accounting technique where individual assets are grouped together on the basis of having the same estimated life; and Vintage Group, an accounting technique where individual assets are grouped together on the basis of the year in which the asset was placed in service.

To put these general depreciation concepts into context, the following section outlines the Department's past Decisions regarding these issues for SNET.

B. PAST DEPARTMENT DECISIONS REGARDING SNET'S DEPRECIATION PRACTICES

Prior to 1986, States were preempted by the Federal Communications Commission (FCC) from determining depreciation rates for intrastate ratemaking purposes. Consequently, the FCC imposed on States the same depreciation rates as it used in the determination of interstate access charges. The FCC determined these ubiquitous rates at "three way" meetings attended by the FCC, the affected telephone company and the relevant state regulatory commission. However, while the FCC allowed state regulatory agencies to participate in the negotiations that took place at the meetings, the FCC retained authority for determining a fair and reasonable depreciation rate for each telephone company it regulated.

In 1986, the U.S. Supreme Court decision in Louisiana Public Service Commission et al v. Federal Communications Commission, et al[3] (Louisiana Decision) afforded States the right to accept or reject the FCC prescribed depreciation rates for intrastate ratemaking purposes. Upon the Supreme Court's striking of the FCC's preemption authority in this area, the Department determined that the best interests of the Connecticut public called for the establishment of an intrastate depreciation represcription process. The first such proceeding for SNET occurred in Docket No. 89-12-03, Southern New England Telephone Company Triennial Depreciation Rate Represcription.

In that docket, SNET requested that the Department permit it the ability to make changes in its PLIFE values and FNS values that would effectively increase its annual depreciation expense allowance from $140 million to $145 million. Separately, SNET projected its reserve deficiency at that time to be $116 million. SNET further asserted that without an increase to its depreciation allowance, the difference (i.e. the reserve deficiency) between what it was recovering and what it was entitled to recover would continue to increase. To address its reserve deficiency problem, SNET proposed an amortization of the obligation over five years and an increase in its annual depreciation expense allowance of $30 million for a total allowed depreciation of $175 million. Collectively, these two changes were estimated to produce a 7.3% composite depreciation rate as opposed to the previously approved 5.8%.

In its Decision in Docket No 89-12-03, the Department stated that the primary purpose of depreciation is to recover the cost of plant investment. To that end, the Department approved: historic life as the best indicator of the life of an asset or asset group; the Remaining Life Method as appropriate for calculating asset group depreciation; some adjustment to PLIFE values and FNS values for calculating

[3] 476 U.S. 355, 106 S.Ct 1890, 90 L Ed 2d 369 (1986)

depreciation rates in 1990, 1991, and 1992; and a five year amortization period for analog circuit equipment, digital circuit equipment, underground cable, metallic and aerial cable. The Department did not allow use of the Equal Life Group technique for determination of an asset group's service life or amortization of reserve deficiencies (with the specific exception of electro-mechanical switch asset accounts).

Specifically, in its Decision in Docket No. 89-12-03, the Department approved substantive changes to PLIFE values and/or FNS values in 17 of 29 primary asset account groups. Furthermore, the Department approved in the same proceeding use by SNET of a five-year amortization schedule for analog circuit equipment, digital circuit equipment, underground cable-metallic and aerial cable; and a two-year amortization period for recovery of any undepreciated costs in SNET's Step-By-Step Switching and Crossbar Switching accounts. To accommodate these changes, the Department permitted SNET to modify its associated depreciation methodologies to specifically recognize the additional component elements.

The Department noted in the 89-12-03 Decision that its actions represented some change from past practice, but characterized the scope of its response to SNET's proposed changes as "conservative." Approving the use of shorter PLIFE values for selective asset groups, adjusted FNS values for equally selective asset groups and limited application of amortization techniques were considered by the Department as a responsible act on its part to preserve its historic commitment to full recovery in prudent plant investment and not to provide cash flow for plant expansion. The increase in the composite depreciation rate permitted SNET by the Department in Docket No. 89-12-03 reflected a limited recognition by the Department that the historical ability of SNET to control the useful life of its plant investment was becoming less possible.

Subsequent to the issuance of its Decision in Docket No. 89-12-03, the Department reexamined the issue of depreciation and depreciation reserve deficiencies in the context of Docket No. 92-09-19, Application of the Southern New England Telephone Company To Amend Its Rates and Rate Structure. That proceeding served as the foundation for establishing depreciation rates and treatment of any depreciation reserve deficiency for the following three year period. In the proceeding, SNET proposed: further reductions in both its PLIFE values and FNS values to reflect changes in the projected future value of certain associated asset groups; changes in the grouping of assets for purposes of calculating their respective PLIFE values and FNS values; an extension of prior Department authorization to apply similar amortization techniques to additional asset accounts; and an overall increase in its allowed composite depreciation rate.

In its Decision in Docket No. 92-09-19, the Department approved a number of changes deemed necessary by the Department to fulfill its commitment to fair and equitable regulatory treatment of SNET's past investment. The Department reaffirmed the opinion it had previously stated in Docket No. 89-12-03 that depreciation treatment must reflect the current effects of both natural deterioration and/or obsolescence. The

Department acknowledged in Docket No. 89-12-03 the highly selective impact represented by technological obsolescence on SNET's broad complement of assets and in Docket No. 92-09-19 approved further adjustment to only five major technology-related asset accounts; affirmed use of Equal Life Groups as an acceptable accounting technique in prescribed instances; and recognized that specific circumstances warranted the use of amortization as an accounting technique.

The Decision in Docket No. 92-09-19 continued to reflect the Department's opinion that technological obsolescence will occur within the telecommunications industry in very selective areas, and will therefore require selective Department responses in adjusting the PLIFE values and FNS values associated with telephone plant investment. The evidence presented in that proceeding, however, also suggested that the scope of technological obsolescence continued to grow and would require further evaluation of the Department's policies, procedures and practices in the future. The Department noted in its Decision in Docket No. 92-09-19 that the evidence presented in that proceeding suggested a "dramatically different set of circumstances than those assumed at the time such technology commitments were made" and proposed increased depreciation in specific asset accounts where vulnerability was evident.

C. THE INSTANT INVESTIGATION

Implementation of Public Act 94-83 provides the Department the opportunity to reevaluate the positions it asserted in both Docket Nos. 89-12-03 and 92-09-19 in a dramatically different context. With the authorization of broader market participation in the Connecticut telecommunications market, reexamination of the depreciation principles is a prudent and necessary act. Any changes to the Department's treatment of the issue of depreciation in this proceeding will be made with the intent of ensuring compliance with the goals and objectives of Public Act 94-83 and the previous actions of this Department in implementing that legislation.

To that end, pursuant to Notice of Hearing, dated March 24, 1995, a public hearing was held on April 25, 1995, in the offices of the Department, One Central Park Plaza, New Britain, Connecticut 06051, and continued to May 18, 1995, and to May 31, 1995, at which time the hearing was closed.

On September 27, 1995, the Department issued a Draft Decision in the instant docket. Pursuant to Notice, all participants had the opportunity to submit written exceptions and present oral argument on that Draft Decision. On November 3, 1995, the Department issued a second Draft Decision. Pursuant to Notice, all participants had the opportunity to submit written exceptions and present oral argument on the second Draft Decision. All participants waived the opportunity to present oral argument on the second Draft Decision.

IV. PARTICIPANTS' POSITIONS

A. SOUTHERN NEW ENGLAND TELEPHONE COMPANY (SNET)

SNET states that the purpose of its depreciation filing is to establish the level of its intrastate depreciation reserve deficiency and its eligibility for recovery in rates. Sadek Testimony, p. 2. According to SNET, it used the life cycle analysis or technology substitution analysis to determine its PLIFE values and quantify its current reserve deficiency. SNET contends that the generally accepted method for making these types of determinations has been an historical analysis of asset retirements, but a change to life cycle analysis is warranted in that it provides the Department more accurate results in an environment characterized by a rapid change in technology. Brief, p. 11, Tr. 2/14/95, p. 114.

In this proceeding SNET calculated its reserve deficiency to be approximately $744.0 million as of January 1, 1995, and projects that the reserve deficiency will continue to grow by approximately $56.0 million per year unless the annual depreciation allowance is increased. DeMatteo Testimony, p. 2. SNET proposes to have the Department reclassify the current reserve deficiency on its books as a Unique Deferred Asset account. While creation of a Unique Deferred Asset account is not an issue of contention in this proceeding, the treatment of any obligations contained within such an account is of interest. SNET has indicated that it would liquidate the reserve deficiency by amortizing $480 million of liabilities over the next five years. Furthermore, SNET proposes to satisfy the account's obligations over the five year period by reducing the reserve deficiency by corporate earnings deemed excess by the Department. Brief, p. 16.

SNET also proposes that the Department adopt SNET's recommended PLIFE and Future Net Salvage (FNS) proposals which, if accepted, would prescribe a 9.1% composite depreciation rate for SNET. 5/18/95 Tr. p. 617. SNET states that it arrived at the overall composite depreciation rate by dividing the sum of its asset group depreciation expenses by the total of SNET's plant in service in accordance with generally accepted accounting principles. Adoption of SNET's recommended PLIFE and Future Net Salvage values would significantly increase SNET's overall, composite depreciation rate to 9.1%. Response to Interrogatory TE-95, Statement B. Previously, in Docket No. 92-09-19, Application of the Southern New England Telephone Company to Amend Its Rates and Rate Structure, SNET requested an increase in its overall composite rate from 5.7% to 7.8% and the Department, in its May 24, 1993 Decision, approved changes in its PLIFE values and FNS values that provided SNET with an overall composite rate of approximately 7.3%.[4]

[4] The reason that the overall rate changes with time is that the level of investment in the various asset groups is dynamic. Therefore, if the investment levels shift and become higher in the asset groups with relatively high, discrete rates, the overall composite rate will also increase.

SNET estimates that changes in the PLIFE values and FNS values proposed for adoption in this proceeding will provide an overall composite depreciation rate of 9.1% and will increase SNET's annual depreciation allowance by approximately $55.7 million over that already projected under the currently authorized 7.3% level. Response to Interrogatory TE-95, revised, Statement B. Finally, SNET recalculated its reserve deficiency to be $744.0 million using Equal Life Group (ELG) methods of calculation for 1983 to December 31, 1994. Late Filed Exhibit No. 4.

B. OFFICE OF CONSUMER COUNSEL (OCC)

OCC prepared an empirical depreciation study which it argues demonstrates that, but for SNET's I-SNET Technology Plan, SNET's current depreciation rates and depreciation reserve are excessive. Accordingly, OCC recommends that SNET's current depreciation rates be retained and that the entire financial effect of the I-SNET Technology Plan be transferred into SNET's proposed deferred debit account. OCC's recommendation results in an $874 million reserve deficiency rather than the $744 million reserve deficiency calculated by SNET. OCC argues, however, that the higher deficiency is offset by the elimination of a depreciation expense increase. Consequently, according to OCC, using its approach, the entire I-SNET effect is captured in the deferred debit account. Majoros Affidavit, Majoros Testimony, pp. 5, 29.

C. NEW ENGLAND CABLE TELEVISION ASSOCIATION (NECTA)

NECTA argues in this proceeding that the assignment of SNET's investment and expenses among its service categories should follow the principle of cost-causation. According to NECTA, this principle requires that costs be assigned and recovered in a manner that directly reflects the reason that the costs were originally incurred. In NECTA's view, therefore, if SNET chooses to undertake new plant additions for the purpose of providing new competitive services, the costs associated with that management decision, including the direct costs of the new capital investments and the costs arising from the accelerated retirement of any in-place plant that may be supplanted by the new facilities, should be assigned entirely to the new competitive services. NECTA Brief, pp. 4-5. NECTA contends that, in an environment in which SNET provides both competitive services and noncompetitive basic telephony services, a failure to observe the cost-causation principle by attributing such costs to basic telephony services would place basic ratepayers at risk for rate increases and discourage potential competitors from providing service in the state because SNET would enjoy an artificial cost advantage for its competitive services. Id., p. 5.

NECTA maintains that the cost-causation principle bears directly on the depreciation reserve deficiency and higher depreciation rates that SNET is proposing in this proceeding. NECTA explains its position as follows:

> Depreciation is simply the process by which a utility such as SNET records the costs of the capital investments that it has made, to permit those costs to be recovered over a time period commensurate with the consumption of those assets. When a depreciation reserve deficiency exists, it has occurred due to a mismatch between the assumed depreciation rates used to recover those capital costs and the depreciation rates that would reflect the asset service lives and net salvage actually experienced by the utility. . . . [B]ecause depreciation expenses are calculated on the basis of plant groupings that support the provision of both monopoly and competitive services, increases in depreciation accruals that are caused by management decisions to replace existing plant in order to provide competitive services will increase the depreciation charges applied to non-competitive monopoly services as well.

Id., pp. 5-6.

In NECTA's view, SNET's claimed depreciation reserve deficiency and proposed depreciation rate and expense changes are a direct outgrowth of its strategic I-SNET broadband network deployment program. This program, according to NECTA, is expressly designed to facilitate SNET's entry into non-basic, competitive markets for video distribution and other speculative, broadband-based services. NECTA maintains, therefore, that SNET's proposal to record the resulting depreciation reserve deficiency in a deferred asset account on its regulated books of account violates the cost-causation principle, and, if approved by the Department, would create significant and lasting harm to the competitive process and the basic ratepayers of Connecticut. Id., p. 6.

NECTA further argues that in Docket No. 91-10-06, in which the Department conducted a review of SNET's modernization plans, the Department rejected the so-called "TELA Plan." According to NECTA, SNET's current modernization program would far surpass the extreme and discredited TELA Plan modernization scenario. While NECTA acknowledges that the Connecticut telecommunications environment has changed since the Department's modernization review in Docket No. 91-10-06, NECTA contends that the steps that have been taken toward a more competitive telecommunications marketplace in Connecticut in no way invalidate the Department's conclusions and concerns regarding accelerated deployment of broadband facilities by SNET. To the contrary, NECTA argues that the heightened volatility and uncertainty created in the state's telecommunications marketplace by the increased potential for competition intensifies the risks associated with large-scale technology deployments by SNET. In NECTA's view, no more than a short, e.g. four-year, period should be taken into account when establishing modernization targets. Id., pp. 9-12.

NECTA further contends that none of the advanced telecommunications services cited in support of I-SNET actually require the ubiquitous broadband infrastructure that

is the goal of the I-SNET program. Id., pp. 12-13. In addition, to further undermine the justification of the reserve deficiency arising from I-SNET, NECTA points to the absence of any evidence that SNET has attempted to legitimize I-SNET through concrete, realistic studies of demand. Id., pp. 13-14.

NECTA further contends that I-SNET has not been shown to create significant cost savings in the provision of basic telephone services. In making this point, NECTA points to the fact that SNET admitted that it has not trialed the provision of basic voice telephony over the HFC network. In NECTA's view, this demonstrates that the provision of basic telephone service is a secondary consideration and not a causal factor in deployment of the I-SNET network. Therefore, NECTA argues, under the cost-causation principle, the basic telephone services category should not bear any of the depreciation reserve deficiency or potentially higher depreciation expense flowing from adoption of the I-SNET plan. Id., pp. 14-16.

Based on the foregoing arguments, NECTA maintains that the I-SNET program is driven by its plans for entry into competitive services markets, namely video and other broadband services. Id., pp. 16-18. NECTA concludes that the consequence of adhering to the cost-causation principle in this proceeding is that neither SNET's claimed reserve deficiency nor any proposed increase in depreciation expense should be permitted to impact SNET's regulated intrastate revenue requirement. NECTA thus urges the Department to adopt the $88-million value calculated on the basis of SNET's currently authorized intrastate depreciation rates. Id., pp. 18-19.

III. DEPARTMENT ANALYSIS

A. DEPRECIATION METHODOLOGIES

Depreciation expense is intended to accurately reflect the decrease in value, over time, of a company's financial investment, which decreased value results from age, use and technological obsolescence. For local exchange carriers and other telecommunications services providers, capital is committed by individual and institutional investors primarily for use by management in purchasing and deploying telecommunications technology necessary to deliver telecommunications services to customers. These investments are referred to generally as telephone plant assets. Revenues, based in part on rates that recognize the depreciation expenses associated with that investment, are an accepted means to recover the investment cost of those assets over their projected useful life.

As explained above, the telecommunications industry generally employs Whole Life (WL) and Remaining Life (RL) methods to calculate depreciation rates. Each method uses the same life and salvage data for the different asset groups. However,

the two methodologies address reserve deficiencies (and surpluses) differently.[5] For example, the WL method determines a depreciation rate that ignores the asset group's life determination estimates of the past. When a company employs the WL methodology, it amortizes the asset's reserve deficiency in order to fully recover the asset's capital cost. In such a case, the amortization period is generally shorter than the remaining life of the asset. In contrast, the RL method seeks to recover the undepreciated cost of an asset over its remaining service life. For example, if the projected useful life of an asset has decreased from the time of its original acquisition, the Remaining Life method would produce a higher depreciation rate than would use of a Whole Life method (before amortization of the deficiency).

In earlier decisions, the Department directed SNET to use Remaining Life methods in calculating depreciation in the belief that SNET was entitled to the full recovery of capital costs made in telecommunications technology that have been deemed prudent by the Department and that RL provides the most efficient means of achieving that goal over the useful life of the asset. As noted by the OCC's witnesses in this proceeding, Remaining Life methodologies offer an inherent advantage over Whole Life methods because they are self-adjusting and compensate for both inadequacies and excesses of the past. Currin Testimony, p. 4. Furthermore, by better matching the rate of depreciation to the period of time that any asset is deemed useful, reserve deficiencies can be reduced in the future with minimal regulatory effort.

Separately, the Department is of the opinion that the Remaining Life method provides the ability to efficiently and effectively accommodate changes in the useful life of any plant investment subsequent to the time of initial investment. The collective experience of this Department in Docket Nos. 89-12-05, 92-09-19 and 94-10-03 has been that the projected useful life for virtually every telephone plant investment has experienced some change from that assumed at the time of the original investment. Nothing has been submitted in this proceeding to suggest that the remaining life of those same investments will in the future be immune to the forces that have resulted in those adjustments. The Department, therefore, concludes that continued use of the Remaining Life method by SNET is the most efficient and effective means to resolve the problems associated with technological obsolescence and the reduced useful life of affected assets.

In Docket Nos. 89-12-03 and 92-09-19, the Department directed SNET to use the actual depreciation reserve and the RL method to calculate a new depreciation rate. The Department approved in those proceedings for use by SNET the following formula for determining the rate of depreciation for any category or group of assets:

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[5] As defined above, a reserve deficiency is the amount by which an asset group's theoretical reserve exceeds the group's actual reserve. An asset group's actual reserve is the accumulation of the group's depreciation expense over a period of years. Its theoretical reserve is the amount that the actual reserve would have been if the PLIFE determined in a depreciation study had been used to determine a depreciation rate that would have been in force for that period.

$$R_D = \frac{100\% - R_A - S_F}{L}$$

Where:
R_D = Depreciation Rate
R_A = Actual Depreciation Reserve as a Percent of Total Asset Group Cost
S_F = Future Net Salvage as a Percent of Total Asset Group Cost
L = Remaining Life in years

In the instant proceeding, SNET independently chose to use theoretical reserve deficiency figures instead of using the previously authorized actual reserve deficiency figures when it performed its calculation of the Depreciation Rate. If the Department allowed this change in methods to be implemented, it could result in a serious decrease in SNET's annual depreciation expense, based on the PLIFE values and FNS values provided for in this Decision. Such a requirement is not consistent with this Department's intent to ensure that treatment of SNET's depreciation needs reflects current market conditions and achievement of the goals of Public Act 94-83. Accordingly, the Department sees no need or purpose for permitting any change to the current formula prescribed in Docket No. 92-09-19 at this time. SNET will, accordingly, continue to use actual reserve data for purposes of complying with the provisions of this Decision when calculating its effective depreciation rate in the above referenced formula. .

B. PLIFE

Two critical components in determining the amount of annual depreciation expense that must be recovered is the initial cost for the asset in question (i.e. first cost) and the projected length of time that such an asset will remain in service (i.e. PLIFE). The past cost of current plant investment made by SNET has effectively been deemed prudent by this Department in Docket Nos. 89-12-05 and 92-09-19 by its inclusion in the asset base subject to consideration by the Department in those proceedings. Therefore, the issue of prudence was never in question in this proceeding.

On the other hand, the issue of expected life is of principal interest in this proceeding and forms a central issue to all of the discussion presented by the participants. It is abundantly clear that expected life and realized life are increasingly independent outcomes of any technological investment in the telecommunications industry and are of interest to everyone because of the relative importance they play in establishing the level of depreciation to be allowed in any given period of time.

As described above, PLIFE is a term used to represent the estimated period of time (i.e. the expected life), expressed in years, during which a particular asset or group of assets will be utilized by the owner. PLIFE value is the principal determinant in calculating an asset group's depreciation rate. Expectant life projections for each asset group are constructed by SNET based on actuarial methods and are periodically

modified when experience with a particular asset group suggests that the realized life of an asset group has changed and some corresponding change in the rate of depreciation is necessary to ensure full recovery in the remaining time period that the asset is considered useful. In the past, SNET assigned initial PLIFE values to asset groups by periodically evaluating historic life data with similar asset groups and modifying those values in accordance with technology trends, technical innovations and increasing competition. The Department previously examined the analytical tools and techniques employed by SNET in performing its PLIFE analysis in Docket Nos. 89-12-03 and 92-09-19 and considered them acceptable for establishing PLIFE values. In each instance, the Department concluded, with changes, that the approach was sufficiently prudent and free of subjectivity and provided reasonably accurate projections of useful life. Upon reexamining the utility of those processes in the increasingly competitive market envisioned by Public Act 94-83, the Department sees no reason to recommend any change in the processes and, consequently, reaffirms its prior acceptance of modifications to the historic life analysis authorized in its May 24, 1993 Interim Decision, Docket No. 92-09-19, p. 10.

In this particular proceeding, SNET purposefully avoided use of any historic analysis in its computation of future PLIFE values. Instead, it proposes a replacement of historic life analysis with a forward-looking technology substitution analysis and the use of firm replacement schedules. These recommendations represent a significant departure from past practice of both SNET and the Department and present the Department with two separate issues requiring resolution. The first is the question of whether replacement of the current backward-looking approach to calculating PLIFE values is necessary at this time. The second is whether the proposed use of established replacement dates by SNET in its I-SNET technology plan is prudent and proper. Because the second question is relevant only if the Department endorses the concept of technology substitution, the Department first addresses the technology substitution concept.

SNET proposes in this proceeding to replace SNET's historic experience with certain asset groups as the basis for projecting the future PLIFE of a group with a firm date when that asset is scheduled for replacement. Referred to by SNET as a technology substitution method, the PLIFE of the asset group will, according to SNET, perfectly match the remaining useful life of the asset. By proposing use of technology substitution over historical analysis, SNET appears to suggest to the Department that enactment of Public Act 94-83 will necessitate modernization of a substantial portion of the telecommunications infrastructure at a rate faster than that which was historically envisioned by SNET and that current approaches to calculating PLIFE values do not fully reflect the impact that such shift in viewpoint represents. SNET thus proposes a fundamental shift in the empirical foundation for projecting PLIFE values to the technology substitution method with the intent of basing projections on, in its view, a more reliable predictor of the actual PLIFE of any investment. SNET's technology substitution approach is predicated on the projected retirement dates of many of its infrastructure assets proposed in SNET's most recent technology plan (as revised

through April 11, 1995). For this proceeding, SNET calculated the projected PLIFE for the major telephone plant accounts based directly on the scheduled replacement dates as contained in that technology plan. SNET's witness confirmed that technology replacement schedules contained within the technology plan served as the foundation material from which the depreciation life estimates submitted in this proceeding were calculated. The witness further confirmed that these same schedules and useful life estimates were used to calculate the projected depreciation reserve deficiency submitted in this proceeding. DeMatteo, pp. 3, 4, 13. A Summary of SNET's proposed PLIFE values is contained in Table A in the Appendix to this Decision and a summary of SNET's technology plan is provided in Table B.

OCC strongly objects to SNET's proposed use of technology substitution as a foundation for establishing PLIFE values. It bases its objection on the belief that SNET's methodology of projecting investment in plant is unreliable because changes in forecasts are predicated solely on a change in assumptions and not a change in evidence. Currin Testimony, pp. 7 and 8. OCC independently calculated and submitted for the Department's consideration a parallel set of PLIFE values to those submitted by SNET using an historical analysis methodology. OCC Exhibit MJM-3. The result of the OCC's exercise is also contained in Table A. The Department notes that the approach employed by OCC in performing its analysis closely parallels the historical approach used by SNET in prior proceedings. While it did not submit an alternative proposal on the issue of establishing PLIFE values for SNET, NECTA states that it believes SNET's currently prescribed intrastate depreciation lives and rates are adequate. NECTA Brief, p.19.

The Department has given serious consideration to the implications of abandoning the practice of using historical information in the task of establishing PLIFE values and the relative merits of effecting changes to this Department's historic treatment of the subject of depreciation. Without question, historic life provided the Department a meaningful reference point to evaluate the magnitude of any change in depreciation treatment proposed by SNET. In the context of a single-provider market where SNET was able to exercise some influence over the useful life of its plant investment, such benchmarks were both reasonable and fair. The requirements imposed by Public Act 94-83 as well as the goals outlined therein suggest that historic analysis, while useful, cannot be the sole determinant for this Department's actions. Were this Department to restrict its considerations in this proceeding to only that approach, the eventual achievement of the legislative goals of Public Act 94-83 might be unintentionally placed at risk.. Accordingly, the Department is of the view that selective application of information produced under the technology substitution method will prove useful to the Department's efforts in this proceeding, is not inconsistent with the Department's past practices and does not in any way signify formal endorsement of SNET's proposed I-SNET deployment.

In similar manner, the Department sought to identify any benefit of investigative efforts undertaken by the Federal Communications Commission (FCC) in this same

area. In so doing, the Department does not suggest that it is in any way bound to employ the results of the FCC efforts or to accept its conclusions in this area. However, the issues associated with technological obsolescence, technical innovation and competition have previously been considered by the FCC and have produced a set of PLIFE values used in the interstate telecommunications arena. Some consideration of that effort, therefore, is also both prudent and warranted to ensure that all possible factors are considered prior to any decision on this issue by the Department. Accordingly, at the Department's request, a set of PLIFE values adopted by the FCC were submitted in this proceeding and are attached as Table C in the Appendix. The FCC conducted little independent analysis in its effort, but instead simply proposed a range of PLIFE values for most asset groups predicated solely upon the high and low PLIFE values submitted by companies that presently come under the jurisdictional authority of the FCC. Response to Interrogatory TE-103.

As noted earlier in this Decision, the Department -- like virtually every other state regulatory agency -- historically relied upon SNET to perform the necessary statistical studies when required to conduct the periodic depreciation represcription exercises. The studies developed by SNET addressed the historic experience of asset retirement decisions within the context of broadly defined asset groups. As part of the study process, analysts used the historic experience to statistically define mortality curves of asset groups.[6] The curves serve as the basis for the PLIFE values ascribed to the subject asset groups. The same mortality curve information served as the basis for calculating the remaining life for an asset group as well as the group's theoretical depreciation reserves. By making a comparison of the theoretical reserves to the actual depreciation reserves, regulators have calculated the reserve deficiency of the groups. The process, in this form, ordained a specific relationship between the PLIFE of an asset group and the group's reserve deficiency which has continued to generate an increasing reserve deficiency over the past decade.

As noted earlier, SNET contends that continued use of historic information is inappropriate for determining the future PLIFE of an asset group because today's markedly different market conditions will not replicate past experience. SNET has, therefore, requested that the Department adopt asset group lives that are determined using the technology substitution analysis (TSA) technique described above. DeMatteo Testimony, p.4. The data source for SNET's proposed life expectancy values is the I-SNET technology deployment plan (I-SNET) SNET asserts that programmatic technology modernization and replacement is essential to its commitment to improve the infrastructure of the state's telecommunications network. In this proceeding and others that have been conducted by the Department since 1991, SNET has consistently maintained that if it is to effectively satisfy the telecommunications requirements of Connecticut's customers, SNET must be able to offer state-of-the-art telecommunications services to the public. SNET has further suggested in those

6 A mortality curve is a graphical representation of the portion of original plant remaining in service each year.

proceedings that I-SNET is the preferred delivery vehicle for those telecommunications offerings.

SNET used the concept of technology substitution to introduce separately constructed I-SNET technology commitments into technology substitution relationships. I-SNET effectively served as the basis for calculating depreciation life estimates or PLIFE values. As noted in the testimony of SNET, the defined life projections and replacement dates contained within the technology plan typically produced shorter PLIFE values than might be produced from a study of comparable asset groups using historic retirement experience as the basis for projecting future utility. Separately, but with equal conviction that the approach is appropriate, SNET has employed a technology substitution approach to reformulating its current depreciation reserve deficiency. DeMatteo Testimony, pp. 9 and 13.

The Department has never found fault with SNET's commitment to meeting the changing expectations of the market. Moreover, the Department is extremely interested in ensuring the future economic viability of Connecticut and has previously stated that to be a cornerstone of its regulatory policy. It is in the public interest that full and fair opportunity be available to SNET to provide both business and residential customers the benefits of new telecommunications technology. To that end, SNET must be provided the necessary assurances that its commitments to introduce, where practicable, the latest technology available, are supported by the Department.

The incorporation of SNET's planned deployment of I-SNET into the proposed use of technological substitution relationships as the basis for calculating depreciation is a profound shift in both the Department's understanding of I-SNET and the applicability of that understanding to the issue of depreciation. In short, I-SNET suggests a level of technological obsolescence that has, heretofore, not been fully articulated by SNET or by the other participants in recent proceedings. According to SNET, "significant customer demand for new services and improved quality" requires new technological investment. SNET maintains that I-SNET will incorporate such new technology and allow SNET to provide a wide range of new services to both its customers and the customers of others who envision using it to achieve their respective market objectives. Economic obsolescence increases the pace of technology substitution and is caused by forces outside SNET's ability to control or influence. The most common causes are competition and changes in laws and regulations that allow more competitors to enter the communications market in Connecticut. DeMatteo Testimony, pp. 6, 9 and 10 The Department must conclude that economic obsolescence has caused or accelerated technological obsolescence and, clearly, competition has caused some additional economic obsolescence that is unrecognized in the current depreciation methodologies and depreciation allowances.

Upon consideration of the evidence provided in this proceeding, the Department concludes that the practice of using historic performance data to determine the projected useful life of any technology investment has been beneficial to the public and

has not been injurious to SNET. Levels of reserve deficiency estimated by SNET have not deterred it from continuing to invest, when it deemed appropriate, in new telecommunications technology. Similarly, the actions of the Department to systematically address the reserve deficiency have demonstrated that the Department recognizes the legitimacy of SNET's interest in reducing that deficiency whenever and however possible. To date, SNET has not been required by Department action to write down any of its plant investment and the Decision in this proceeding will be a continuation of the long-standing efforts to ensure equitable treatment of the depreciation issue.

However, the Department's traditional use of historic performance data occurred in a highly regulated economic environment, characterized by the dominance of monopoly companies, where competition had little to no impact and where the policies of this Department were directed at providing an orderly and efficient introduction of new technology to the network. The depreciation rates prescribed in that milieu afforded sufficient opportunity for SNET to achieve full recovery of its prudent plant investment. With enactment of Public Act 94-83, the economic climate is substantially changed and SNET has effectively lost the protections and privileges accorded it and its investors. To a certain degree, the actions of the Connecticut General Assembly and this Department in the course of implementing those legislative initiatives contribute to the need and necessity for revisions to the historical treatment of SNET's current investment and its continued useful life in the future.

With a relatively limited role in many aspects of the competitive marketplace emerging in Connecticut, the Department must ensure that the policies and procedures it puts forward do not inadvertently accord a competitive advantage or disadvantage to any party. This is especially true in matters of technology acquisition, geographic deployment and financial recovery. Concern for these three areas requires the Department to make a critical examination of its past practices to ensure their continued suitability for the future. As part of such reexamination, the Department has sought to determine if past practices, including depreciation represcriptions, are viable as the industry moves toward greater competition.

By initiating this proceeding, the Department believed that it was necessary to first reexamine its accepted definition of a "prudent investment." It is generally assumed that the definition as it applies to SNET under the competitive market conditions prescribed by Public Act 94-83 might be significantly different than when SNET was not subject to competition. Prior to enactment of Public Act 94-83, SNET was accorded certain protections and privileges that created a **virtual** guarantee for the recovery of plant investments deemed to be prudent by the Department. Accordingly, the Department had the legal obligation to ensure that the subscribers of SNET's services were the principal beneficiaries of that investment decision. Where that criteria was satisfied, the investment was considered prudent and eligible for recovery in the rates of the services provided by SNET. Under the terms and conditions prescribed by Public Act 94-83, the competitive marketplace will determine what constitutes a prudent

investment. Companies that do not recognize the needs of the marketplace will find their services unwanted and will, accordingly, not achieve recovery of their capital investment.

This proceeding represents the juncture of two diametrically opposed economic cultures -- the efforts of the Department to promote greater competition in the future and the sense of responsibility that the Department has to ensure that earlier commitments made to this state by individuals and investors are properly treated. This is important not only for those who have invested in the past in telecommunications infrastructure but for those who look to invest in the associated infrastructure industries of electric power, natural gas and water in the future. The Department has a responsibility to ensure that its actions in this proceeding do not unnecessarily jeopardize investment in those critical infrastructure industries or unfairly increase the cost of capital to them.

While competition is not yet fully developed in Connecticut, prior decisions by the Department have significantly reduced SNET's control over the future telecommunications infrastructure in Connecticut. With the successive waves of technological advances, changing industry economics and substantive changes in regulatory practices as the context for this proceeding, the Department questions the continued use of past depreciation practices. The Department does so with some caution, however. The relatively transitory state of market and regulatory conditions necessitate something less than wholesale abandonment of a certain past for an uncertain future. Accordingly, the Department will adopt for an interim period of five years a combination of past and new depreciation practices in this proceeding. The Department realizes the administrative burden that this might present to SNET in the interim period but the nascent state of competitive development and the limited range of alternatives available to the public at this time makes some constrained approach appropriate for all parties.

The issue in this proceeding has not been whether SNET is legitimately entitled to full recovery of its historical investment in telephone plant. It has simply been the rate of recovery that should be permitted it under future market conditions. It is generally assumed that any future market scenario will include the presence of a number of prospective competitive alternatives to SNET for telephone service. The recent interest expressed by a number of firms in participating in the Connecticut market suggests that the future will, in fact, be populated with a greater number of alternatives than are currently available in the state. The prospect of impending competition has clearly increased the sensitivity of SNET to the importance of meeting customers' expectations for new services and improved quality. The Department would be remiss in concluding that this sensitivity is solely a result of the influx of competition, but it must attribute at least some of it to the possibility that some vulnerability is presented to SNET by the presence of new market and technology alternatives. The Department concurs with SNET's representations in this proceeding that it must accelerate the rate of replacement for its telephone plant of technology to ensure the

public has opportunity to truly choose among competitive alternatives as prescribed by Public Act 94-83. If SNET were unnecessarily impeded in its efforts to deploy new technology by decisions of the Department, the opportunity to exercise choice envisioned in Public Act 94-83 would be unnecessarily constrained. As such, the Department is compelled under the competitive provisions of Public Act 94-83 to pursue alternative depreciation schemes which would promote efficient technology modernization to benefit the public's ability to choose.

Any processes or techniques sanctioned for use by SNET in determining the PLIFE of its asset groups must seek to balance the seemingly conflicting goals of the current bifurcated telecommunications market in Connecticut. In this proceeding, the Department has given careful consideration to the use of the technology substitution approach proposed by SNET and must conclude that wholesale adoption of the technique would imply to all of the participants in this proceeding and to the public that a state of effective competition has already been achieved. That is not the case, and, therefore, the Department can offer only conditional support for the concept of technology substitution as proposed by SNET. By SNET's own definition, the depreciation allowance prescribed by the TSA method is based on a technology plan that presumes substitution to be an imperative response to the challenges of competition. After extensive review of SNET's representations of the merits of technology substitution analysis to determining depreciation, the Department finds that SNET's view that competition will be the genesis of virtually every technology replacement decision made by this industry is consistent with facts presented in this proceeding and previously in Docket Nos. 91-10-06 and 94-07-01. However, the relatively primitive state of technological competition evidenced in Connecticut does not provide the Department sufficient basis to consider competition as the sole determinant for calculating current depreciation allowances. Therefore, while some improvement to the current depreciation treatment is warranted to better reflect present operating conditions, a total adoption of SNET's proposal by this Department is both unwarranted and unnecessary at this time.

The Department noted earlier in this Decision that SNET did not submit a historic study of asset mortalities in this proceeding as it has in the past. The Department did not mandate SNET to provide such information in the conduct of the proceeding. The Department appreciates the fact that in SNET's opinion, such studies have no material value and should not be considered in making a determination of the proposed depreciation allowances However, historical studies are the principal alternative to technology substitution analysis and the only method of calculating depreciation heretofore permitted by the Department.

As noted earlier, SNET provided the Department with a set of PLIFE values for various asset groups submitted by telecommunications firms reporting to the FCC. Response to Interrogatory TE-103. For purposes of interstate depreciation represcription, the FCC has made it a matter of policy to accept, without challenge, any proposed PLIFE value that falls within the range shown on that list. By accepting

without adjustment the PLIFE values submitted, the FCC appears to have concluded that the range of PLIFE values reflected in the set of submissions was not unreasonable nor unexpected. By including within its scope of consideration the FCC submissions, the Department has sought a point of comparative reference not unlike that provided it in prior proceedings by historical analysis techniques. In this particular situation, the current actions of other regulatory agencies is as meaningful as the past actions of management in determining fair and reasonable treatment of SNET's request in this proceeding.

While the Department considers the FCC procedure as fairly rudimentary, the availability of the FCC range for use in this proceeding does provide the Department a comparative benchmark to assess the reasonableness of SNET's proposed PLIFE values. In certain asset groups, SNET's proposed PLIFE values demonstrate a significant deviation from the FCC recommended range for that specific group. However, in most instances the SNET PLIFE value is either near or within the range deemed acceptable by the FCC.

It is significant that the FCC PLIFE values are based on the current treatment of virtually all telephone companies' regulated investments. Those companies are experiencing comparable technological and economic pressures as those attested to by SNET in this proceeding and which resulted in SNET's Technology Substitution proposal. At the same time, empirical studies are the primary means of calculating many of the PLIFE values submitted to the FCC and contained within the FCC prescribed ranges. Use of the FCC PLIFE values, therefore, would address the goals and objectives sought by OCC in proposing use of empirical study methodologies in this proceeding.

Accordingly, for purposes of analyzing the impact of any change in PLIFE values on depreciation rates, the Department has employed a set of PLIFE values using the mid-point of the FCC recommended range for any asset group where the FCC mid-point PLIFE is longer than the PLIFE proposed by SNET and the SNET proposed PLIFE value where the FCC mid-point PLIFE is shorter than the PLIFE proposed by SNET.. The particular PLIFE values used by the Department is contained within Table A. As will be discussed in detail in Section D, below, the Department has used these PLIFE values and the FNS values as described in Section C, below, to calculate a composite depreciation rate. Adjustments to the PLIFE values used by the Department will be allowed to recognize Connecticut specific conditions, as provided in Section D. Before detailing the adjustments that will be allowed, however, it is first necessary to examine the FNS values that the Department has used in its calculation.

C. FUTURE NET SALVAGE (FNS) OF ASSETS

A retired asset may have gross salvage value when a company sells, scraps or reuses it upon retirement from service. Net salvage is the value remaining after subtracting the expected cost of removal. In certain instances, a negative salvage

value may be experienced at the time of replacement. This can result when the economic cost of removing the associated asset exceeds any gross salvage value that might otherwise exist for the asset. A projection of the future net salvage (FNS) value is important to determine the portion of the initial investment that is properly eligible for recovery under prescribed depreciation allowances. In this proceeding, SNET submitted a set of future net salvage values for each of its respective asset groups expressed as a percent of original cost.

In the course of calculating specific rates, accepted depreciation practice requires that the initial investment cost for the individual asset or asset group be modified by salvage value (or increased in the case of any determined negative salvage value) irrespective of whether the company is using Remaining Life or Whole Life methods to compute its depreciation allowance. In the case of a positive net salvage value, the salvage value adjustment to the asset's cost ensures that a company will recover from ratepayers only the actual decreases in cost associated throughout provision of service. In the case of negative net salvage value, a company will recover all of the costs associated with the provision of service.

In SNET's Depreciation Study submitted in this proceeding, SNET chose not to include any analysis of past data, current experience, or future expectations to estimate the future net salvage. Although there may be some relationship between the determinants of depreciation and FNS values, it was not quantified in SNET's Study. DeMatteo Testimony, p.11. A Summary of SNET's proposed FNS values is contained in Table D in the Appendix to this Decision.

OCC argues that SNET overstated its FNS values because "it compares net salvage costs in current dollars to retirements of old historical dollars thus producing relatively high net salvage ratios." The OCC witness stated that the $147.0 million reserve deficiency attributed to FNS values was directly a result of using this approach. Majoros Testimony, pp. 13 & 14. As an alternative, OCC proposes its own FNS values for Department consideration. A Summary of the OCC proposed FNS values is contained in Table D in the Appendix.

In much the same manner as noted in the areas of PLIFE values, the FCC has established a set of FNS values for most of the asset groups under consideration in this proceeding. Response to Interrogatory TE-103. And, like the PLIFE values described above, it is based on the high and low FNS values of companies that report to the FCC. The FCC FNS values are contained in Table C.

After careful consideration of the representations made by SNET, OCC, and NECTA, the Department conducted a similar analysis of FNS values to that conducted for PLIFE values. As with PLIFE values, the FCC range of prescribed FNS values is sufficiently representative of the current experience of the telecommunications industry to merit its use in this exercise. As noted above, all of the subject companies are experiencing similar technological and economic pressures to those currently